

Date: Wednesday, 12/13/2006 2:47:35 PM
User: Kim Johnston

Process Sheet

Customer	CU-DAR001 Dart Helicopters Services	Drawing Name	TUBE ASSEMBLY		
Job Number	: 29933				
Estimate Number	: 11923				
P.O. Number	: N/A	Part Number	: D2003101		
This Issue	: 12/13/2006 S.O. No. : N/A	Drawing Number	: UNDER REVIEW CB 06.12.13		
Prsh Rev.	: NC	Project Number	: N/A SEE NOTE ON DWG		
First Issue	: PMA	Drawing Revision	: B		
Previous Run	: 28132	Material	: N/A		
Written By	:	Due Date	: 1/10/2007 Qty: 5 Um: Each		
Checked & Approved By	: Ob 12 14				
Comment	: Est. B 99.11.11 Re-format EC				

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :	
1.0	M304TR0375W035 M16061T6F0375W035	304 TUBING	
		Comment: Qty.: 1.1485 f(s)/Unit Total : 5.7425 f(s) Cut: 13.13" long as per Dwg D2003 Material: 3/8" x 0.035" wall 6061-T6 tubing Batch: M17931 x 4 / M17666 x 1 X	FF 07-01-02
2.0	M26506	Firesleeve-crkl .375IDia	
		Comment: Qty.: 1.1593 f(s)/Unit Total : 5.7965 f(s) Cut: 13.25" long as per Dwg D2003 Material: M2650-6 Heat sleeve Batch: M17521	MF. 07-01-09
3.0	MS208196D	Sleeve	
		Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s) Sleeve Pick: Qty Part Number Description Batch 2 MS20819-6D Sleeve m17654	MF. 07-01-09
4.0	AN8186D	Nut	
		Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s) Nut Pick: Qty Part Number Description Batch 2 AN818-6D Nut m17651	MF. 07-01-09

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES				
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: Date: 07/01/12
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 12/13/2006 2:47:36 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 29933

Part Number: D2003101

Job Number:



Seq. #: Machine Or Operation:

Description :

5.0 D2182 Heat Shrink



Comment: Qty.: 0.3750 f(s)/Unit Total : 1.8750 f(s)

Heat Shrink

Pick:

Qty Part Number Description Batch

1 D2182-045 Heat shrink B 21864 ⑤

MF. 07-01-09

6.0 SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Form tube as per template D2003-101

Assemble as per Dwg D2003

MF. 07-01-09 ⑤

FF 07-01-02

5

7.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/01/11 ⑤

8.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 57104

PC 7/1/12 ⑤

9.0 QC21 FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07/01/12 ⑤

Job Completion



07/01/12 ⑤

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
"								

NOTE: Date & initial all entries



DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. B
DATE		D2003	SHEET 1 OF 2
99.06.08		TITLE	
		SCALE	
		206 CABIN HEATER TUBE ASSEMBLIES NTS	
A	90.04.09	NEW ISSUE	
B	99.06.08	UPDATE PER TEMPLATES; ADD P/N'S; 0.025 TUBING NOW 0.035 (TSR1049)	

RELEASED

49.06.08 RE

UNDER REVIEW

CB

CC.08.21 CB

Some flat 06.12.13
lengths wrong

SHOP COPY
RETURN TO
ENGINEERING

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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 29933

NOTE: FLAT LENGTHS MAYBE
INCORRECT. BEND TO BENT
TOOL. REPORT TO ENGINEERING

P/N	TEMPLATE	HEATSLEEVE LENGTH ¹	CUT LENGTH OF TUBE ²	MS20819-8J SLEEVE	AN818-8J NUT	MS20819-8D SLEEVE	AN818-8D NUT	MS20819-6D SLEEVE	AN818-6D NUT	DESC.	MATERIAL ^{4/8/7}	VENDOR OR SPEC
D2003-001	T2003-001	5.2	6.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-003	T2003-003	7.3	8.12					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-005	T2003-005	9.8	10.62					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-007	T2003-007	20.0	19.63					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-009	T2003-009	12.38	12.44					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-011	T2003-011	33.31	32.38					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-013	T2003-013	12.7	13.54					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-015	T2003-015	17.2	18.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-017	T2003-017	17.0	16.25					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-019	T2003-019	9.8	10.62		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-700/6
D2003-021	T2003-021	N/A	2.25		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-700/6
D2003-023	T2003-023	4.5	5.33		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-700/6
D2003-025	T2003-025	9.8	10.60		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-700/6
D2003-027	T2003-027	7.25	7.38		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-700/6
D2003-029	T2003-029	17.2	18.00		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-700/6
D2003-031	T2003-031	14.6	15.38	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-033	T2003-033	29.75	29.62	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-035	T2003-035	24.7	27.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-037	T2003-037	24.81	23.38	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-039	T2003-039	34.0	34.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-041	T2003-041	6.0	5.88	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-043	T2003-043	11.7	10.75	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-045	T2003-045	3.50	2.44	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-047	T2003-047	5.56	5.56	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-049	T2003-049	33.2	34.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-077	T2003-077	N/A	6.25					1	1	JET	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-101	T2003-101	13.25	13.13					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-600/6
D2003-103	T2003-103	12.38	12.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-600/6
D2003-105	T2003-105	10.75	10.60					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-600/6
D2003-107	T2003-107	12.75	12.25					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-600/6
D2003-109	T2003-109	8.25	8.125		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-600/6
D2003-111	T2003-111	4.75	4.625		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WWV-T-600/6
D2003-116	T2003-116	4.0								HEATSLEEVE	M2650-20 CRINKLE-SOFT	STRATOFLEX
D2003-120	T2003-120	4.0								HEATSLEEVE	M2650-16 CRINKLE-SOFT	STRATOFLEX
D2003-14	T2003-14	4.0								HEATSLEEVE	M2650-14 CRINKLE-SOFT	STRATOFLEX
D2003-16	T2003-16	4.0								HEATSLEEVE	M2650-16 CRINKLE-SOFT	STRATOFLEX
D2003-205	T2003-205	9.75	9.60					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6
D2003-207	T2003-207	3.75	3.75					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WWV-T-700/6

DART

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2003	REV. B SHEET 2 OF 2
DATE 99.06.08		TITLE 206 CABIN HEATER TUBE ASSEMBLIES NTS	SCALE

RELEASED
99.06.08 KE

Notes:

- (1) USE STRATOFLEX M2650-6 CRINKLE-SOFT HEATSLEEVE.
- (2) TUBING ASSEMBLIES TO BE CUT AND BENT IN ACCORDANCE WITH TEMPLATES.
- (3) TUBES TO BE FLARED 30° TO MATE WITH FITTINGS MADE TO MS33514.
- (4) ENSURE SEAMLESS TUBING IS USED.
- (5) INSTALL HEATSLEEVE OVER ALL TUBES WITH A DESIGNATED LENGTH OF HEATSLEEVE PER THE PARTS LIST.
- (6) 5052 (WW-T-700/4) TUBING MAY BE SUBSTITUTED WHEN 6061 TUBING IS NOT AVAILABLE.
- (7) 0.049 WALL THICKNESS CRES TUBING MAY BE SUBSTITUTED WHEN 0.035 IS NOT AVAILABLE.
- (8) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

UNDER REVIEWCB
06.12.13
 06.08.21 CB
 Some flat lengths,
 and wrong

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 NO 29933
